



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

SWINEHART, E

ART. UNIT PAPER NUMBER

3612

DATE MAILED:

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PM11/0217

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

---The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address---

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-13 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-13 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3,4,7,8,11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3 and 11, the relationship of the "retractable fore and aft supports" to those previously set forth is unclear.

In claim 7 "for manual control to further selectively modify" is not understood. If the fathometer means provides signals for manual control, how does this "selectively modify the hydrofoil elevation" as claimed. Such, as claimed, implies automatic control in response to sensed depth.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-6, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '893 in view of Ask.

Japan '893 teaches the field of the invention, including a pair of buoyant "hydrofoils" 2. The hydrofoils are each supported by separately extensible and retractable fore and aft supports 4, 6 and 8. Although not shown, a turning mechanism is an inherent feature of such a craft. The hydrofoils are raised and lowered to control hull oscillation. Japan '893 fails to discuss (as best understood) the use of sensors to sense roll and pitch as are known in the art for use in controlling the hydrofoils.

Ask teaches a hydrofoil craft in which sensors are employed to control hydrofoils. Such sensors include roll, pitch, yaw, and velocity sensors, as well as a rudder position sensor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ roll and pitch sensors on the watercraft of Japan '893 to aid in control of the hydrofoils as taught by Ask.

Such a combination would have been desirable at the time of the invention was made so as to provide for an effective means to measure watercraft orientation, thereby providing the necessary information to provide effective control of the hydrofoils.

5. Claims 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '893 in view of Ask as applied to claim 5 above, and further in view of old and well known prior art.

Japan '893 as modified fails to teach the use of a depth sensor for control of the hydrofoils.

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It is notoriously old and well known in the marine environment to provide a depth sensing device on board so as to provide an indication to the operator of the possibility of running into dangerously shallow water, and it would have been obvious to one of ordinary skill in the art at the time of the invention to provide such a sensor on the watercraft of Japan '893.

6. Claims 8,⁹ 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '893 in view of Ask as applied to claims 1,7 and 10 above, and further in view of Stout et al.

Japan '893 fails to teach the location of the propulsion units.

Stout et al. teaches hydrofoils attached to the bottom of the hull. Each hydrofoil carries a propulsion unit.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide each hydrofoil of Japan '893 with a propulsion unit as taught by Stout et al.

Such a combination would have been desirable at the time of the invention was made so as to provide for the ability to provide continued propulsion even though the primary hull is lifted from the water.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Spinka teaches hydrofoil height adjustment in response to signals from a gyroscope, or roll sensor.

Magazzù teaches roll alleviation by hydrofoil adjustment.

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8. Papers relating to this application may be submitted to Technology Center 3600 by facsimile transmission. The submission of such papers by facsimile transmission must comply with the notice published in the Official Gazette, **1096 OG 30** (November 15, 1989). The Fax Center number is (703)-305-3597.

9. Any inquiry concerning this communication should be directed to Ed L. Swinehart whose telephone number is (703)-308-2566.

10. Any inquiry of a general nature or relating to the status of the application should be directed to the Technology Center 3600 receptionist whose telephone number is (703)-308-1113.

February 10, 1999

A handwritten signature in black ink, consisting of several overlapping loops and a horizontal line at the bottom.

Ed L. Swinehart
Primary Examiner
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